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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.                 | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------------------|------------------|
| 10/623,390  | 07/18/2003  | Peyman Hadizad       | ONS00502                            | 4626             |
| 7590 06/17/2005   |             |                      | EXAMINER                            |                  |
| James J. Stipanuk Semiconductor Components Industries, L.L.C. |             |                      | EVERHART, CARIDAD                   |                  |
|   |             |                      | ( · . · . · . · · · · · · · · · · · |                  |
| Patent Administration Dept - MD/A700                          |             |                      | ART UNIT                            | PAPER NUMBER     |
| P.O. Box 62890  |             |                      | 2891                                |                  |
| Phoenix, AZ   | 85082-2890  |                      | DATE MAILED: 06/17/2005             |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   |   |  | ,    |  |  |  |
|---|---|--|------|--|--|--|
|   | Application No.   | Applicant(s)   |      |  |  |  |
|   | 10/623,390  | HADIZAD, PEYMAN  |      |  |  |  |
| Office Action Summary   | Examiner  | Art Unit   |      |  |  |  |
|   | Caridad M. Everhart   | 2891   |      |  |  |  |
| The MAILING DATE of this community  Period for Reply  | inication appears on the cover sheet  | with the correspondence address  |      |  |  |  |
| A SHORTENED STATUTORY PERIOD THE MAILING DATE OF THIS COMMUI  - Extensions of time may be available under the provision after SIX (6) MONTHS from the mailing date of this con  - If the period for reply specified above is less than thirty - If NO period for reply is specified above, the maximum  - Failure to reply within the set or extended period for rep Any reply received by the Office later than three months earned patent term adjustment. See 37 CFR 1.704(b). | NICATION.  ns of 37 CFR 1.136(a). In no event, however, may nmunication.  (30) days, a reply within the statutory minimum of t statutory period will apply and will expire SIX (6) Minch will, by statute, cause the application to become after the mailing date of this communication, even | a reply be timely filed  hirty (30) days will be considered timely.  ONTHS from the mailing date of this communication  ABANDONED (35 U.S.C. § 133). | on.  |  |  |  |
| Status  |   |  |      |  |  |  |
| 1) Responsive to communication(s) fi  | iled on <u>28 March</u> 2005.   |  |      |  |  |  |
| 2a) ☐ This action is FINAL.   | 2b) This action is non-final.   |  |      |  |  |  |
| 3) Since this application is in conditio  | n for allowance except for formal ma  | atters, prosecution as to the merits   | is   |  |  |  |
| closed in accordance with the prac  | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.   |  |      |  |  |  |
| Disposition of Claims   |   |  |      |  |  |  |
| 4)⊠ Claim(s) <u>1-20</u> is/are pending in the  | application.  |  |      |  |  |  |
| 4a) Of the above claim(s) is/   | * -   |  |      |  |  |  |
| 5) Claim(s) is/are allowed.   |   |  |      |  |  |  |
| 6) Claim(s) 1-4,9-12,15,19 and 20 is/s  | )⊠ Claim(s) <u>1-4,9-12,15,19 and 20</u> is/are rejected.   |  |      |  |  |  |
| 7) Claim(s) <u>5-8,13,14 and 16-18</u> is/ar  | e objected to.  |  |      |  |  |  |
| 8) Claim(s) are subject to restr  |   |  |      |  |  |  |
| Application Papers  |   |  |      |  |  |  |
| 9) The specification is objected to by t  | he Examiner.  |  |      |  |  |  |
| 10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.   |   |  |      |  |  |  |
|   | ection to the drawing(s) be held in abey  |  | •    |  |  |  |
|   | ng the correction is required if the drawin   | ` '  | (d). |  |  |  |
| 11)☐ The oath or declaration is objected  | •   |  | (-)- |  |  |  |
| Priority under 35 U.S.C. § 119  | •   | •  |      |  |  |  |
| <u> </u>  | n for foreign priority, under 25 11 C.O.  | \$ 440(a) (d) an (6)   |      |  |  |  |
|   | y documents have been received.  y documents have been received in  |  |      |  |  |  |
|   | s of the priority documents have been   |  |      |  |  |  |
|   | ional Bureau (PCT Rule 17.2(a)).  | in received in this National Stage   |      |  |  |  |
| * See the attached detailed Office acti   | ,   | nt received  |      |  |  |  |
|   | on for a list of the defined copies in  | A received.  |      |  |  |  |
| Attachment(s)   |   |  |      |  |  |  |
| 1) Notice of References Cited (PTO-892)   | 4) Interview  | v Summary (PTO-413)  |      |  |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review   | (PTO-948) Paper N   | o(s)/Mail Date   | ٠    |  |  |  |
| 3) Information Disclosure Statement(s) (PTO-1449 of Paper No(s)/Mail Date 7-18-03.  | or PTO/SB/08) 5)  | f Informal Patent Application (PTO-152)  |      |  |  |  |

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Applicant's arguments with respect to claims 1-4,9-12,15,19,20 have been considered but are most in view of the new ground(s) of rejection.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

## Claim Rejections - 35 USC § 103

Claims 1-4,9-12,15,19, and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Yuan, et al. (US 5,610,085) in view of Rinne, et al. (US 6,628,532B1).

Yuan, et al disclose a device which includes a FET, an inductor342, a capacitor 344, and a controller 348, which is a control circuit(col. 4, lines 44-60). In Fig. 3d there is shown a second FET 360(col. 5, lines 10-15). The FET are JFET(col. 3, lines 23-26) and the JFET are GaAs (col. 1, lines 21-26). The capacitor 344 is shown, along with the other cited devices in Fig. 3b. It can be seen that the devices are coupled to each other with the inductor coupled to a positive terminal.

Yuan, et al is silent with respect to the depletion mode FET.

Rinne, et al disclose in a dc converter that normally on FETs result in improved performance(col. 2,lines 27-39).

It would have been obvious to one of ordinary skill in the art at the time of the invention that Yuan, et al encompasses the normally on FETs as the JFETs disclosed by Yuan, et al because Yuan et al discloses that the depletion regions taught by Yuan et

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15), and the depletion region is the characteristic that results in a normally on FET as taught by Rinne, et al., as is well known in the art.

## Allowable Subject Matter

Claims 5-8,13,14,16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caridad M. Everhart whose telephone number is 571-272-1892. The examiner can normally be reached on Monday through Fridays 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, B. Baumeister can be reached on 571-272-1722. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CARIDAD EVERYANT
PRIMARY EXAMINED

C. Everhart